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NRCS

Natural
Resources
Conservation
Service

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a joint effort of the United
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Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Prince George's County, Maryland



March 6, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

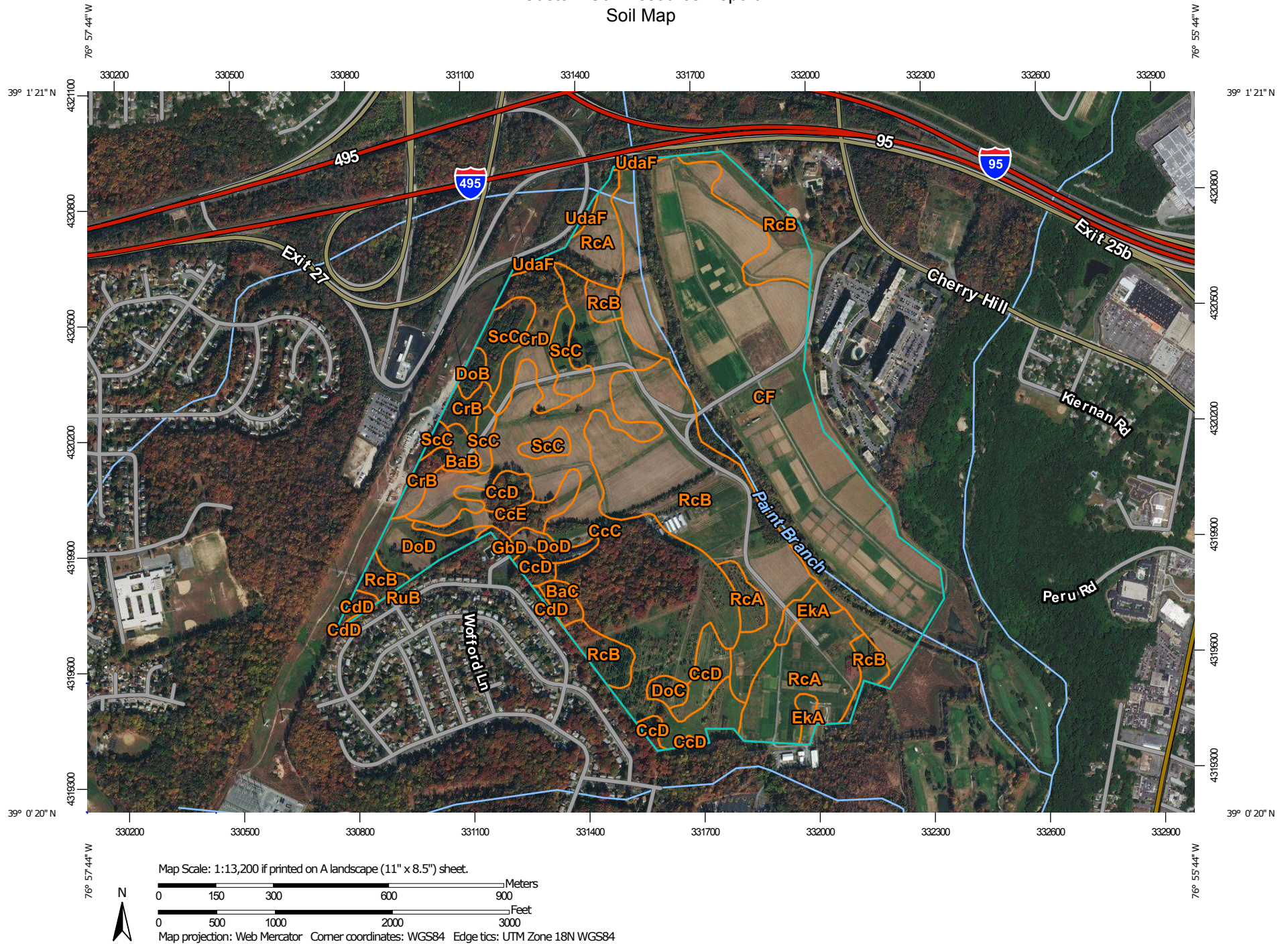
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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

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MAP LEGEND


Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot


 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Prince George's County, Maryland

Survey Area Data: Version 16, Sep 11, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 3, 2015—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaB	Beltsville silt loam, 2 to 5 percent slopes	1.9	0.6%
BaC	Beltsville silt loam, 5 to 10 percent slopes	2.0	0.6%
CcC	Christiana-Downer complex, 5 to 10 percent slopes	70.3	21.2%
CcD	Christiana-Downer complex, 10 to 15 percent slopes	11.2	3.4%
CcE	Christiana-Downer complex, 15 to 25 percent slopes	5.3	1.6%
CdD	Christiana-Downer-Urban land complex, 5 to 15 percent slopes	0.4	0.1%
CF	Codorus and Hatboro soils, frequently flooded	104.2	31.5%
CrB	Croom gravelly sandy loam, 2 to 5 percent slopes	5.0	1.5%
CrD	Croom gravelly sandy loam, 10 to 15 percent slopes	9.4	2.8%
DoB	Downer-Hammonton complex, 2 to 5 percent slopes	1.5	0.5%
DoC	Downer-Hammonton complex, 5 to 10 percent slopes	1.6	0.5%
DoD	Downer-Hammonton complex, 10 to 15 percent slopes	8.3	2.5%
EkA	Elkton silt loam, 0 to 2 percent slopes	3.7	1.1%
GbD	Galestown-Urban land complex, 5 to 15 percent slopes	0.7	0.2%
RcA	Russett-Christiana complex, 0 to 2 percent slopes	27.2	8.2%
RcB	Russett-Christiana complex, 2 to 5 percent slopes	64.6	19.5%
RuB	Russett-Christiana-Urban land complex, 0 to 5 percent slopes	0.0	0.0%
ScC	Sassafras-Croom complex, 5 to 10 percent slopes	12.2	3.7%
UdaF	Udorthents, highway, 0 to 65 percent slopes	1.4	0.4%
Totals for Area of Interest		331.0	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas

shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Prince George's County, Maryland

BaB—Beltsville silt loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2ndw2
Elevation: 10 to 400 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Beltsville and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Beltsville

Setting

Landform: Broad interstream divides
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty eolian deposits over loamy fluviomarine deposits

Typical profile

A - 0 to 3 inches: silt loam
E - 3 to 8 inches: silt loam
Bt - 8 to 20 inches: silt loam
Btx - 20 to 41 inches: loam
2B't - 41 to 65 inches: sandy clay loam
2BCg - 65 to 71 inches: very gravelly sandy clay loam
2CB - 71 to 76 inches: gravelly coarse sandy loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: 20 to 40 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Aquasco

Percent of map unit: 10 percent
Landform: Broad interstream divides
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Reybold

Percent of map unit: 10 percent
Landform: Broad interstream divides
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Lenni, undrained

Percent of map unit: 5 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Grosstown

Percent of map unit: 5 percent
Landform: Broad interstream divides
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

BaC—Beltsville silt loam, 5 to 10 percent slopes

Map Unit Setting

National map unit symbol: 2ndw6
Elevation: 10 to 400 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Beltsville and similar soils: 70 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Beltsville

Setting

Landform: Broad interstream divides
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty eolian deposits over loamy fluviomarine deposits

Typical profile

A - 0 to 3 inches: silt loam
E - 3 to 8 inches: silt loam
Bt - 8 to 20 inches: silt loam
Btx - 20 to 41 inches: loam
2B't - 41 to 65 inches: sandy clay loam
2BCg - 65 to 71 inches: very gravelly sandy clay loam
2CB - 71 to 76 inches: gravelly coarse sandy loam

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: 20 to 40 inches to fragipan
Natural drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Grosstown

Percent of map unit: 15 percent
Landform: Fluviomarine terraces, broad interstream divides, stream terraces
Landform position (three-dimensional): Interfluve, tread
Down-slope shape: Linear
Across-slope shape: Linear, convex
Hydric soil rating: No

Reybold

Percent of map unit: 5 percent
Landform: Broad interstream divides
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hoghole

Percent of map unit: 5 percent
Landform: Hillslopes

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Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Aquasco

Percent of map unit: 5 percent
Landform: Broad interstream divides
Landform position (three-dimensional): Interfluvium
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

CcC—Christiana-Downer complex, 5 to 10 percent slopes

Map Unit Setting

National map unit symbol: 2ndxb
Elevation: 10 to 390 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Christiana and similar soils: 45 percent
Downer and similar soils: 30 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Christiana

Setting

Landform: Drainhead complexes, hillslopes, interfluvium, swales
Landform position (two-dimensional): Footslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey fluviomarine deposits

Typical profile

A - 0 to 6 inches: silt loam
BE - 6 to 10 inches: silt loam
Bt1 - 10 to 21 inches: silty clay loam
Bt2 - 21 to 49 inches: silty clay
BC - 49 to 80 inches: clay loam

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: High

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Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 20 to 40 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Downer

Setting

Landform: Interfluves, knolls

Landform position (two-dimensional): Backslope, shoulder

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Parent material: Loamy fluviomarine deposits

Typical profile

Ap - 0 to 12 inches: loamy sand

Bt - 12 to 31 inches: sandy loam

BC - 31 to 38 inches: loamy sand

C - 38 to 72 inches: sand

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Beltsville

Percent of map unit: 10 percent

Landform: Flats

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Galestown

Percent of map unit: 10 percent
Landform: Dunes, terraces, knolls, flats
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Fallsington

Percent of map unit: 5 percent
Landform: Swales, drainhead complexes, drainageways, depressions, interfluves
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Hydric soil rating: Yes

CcD—Christiana-Downer complex, 10 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2ndxc
Elevation: 10 to 390 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Christiana and similar soils: 50 percent
Downer and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Christiana

Setting

Landform: Swales, drainhead complexes, hillslopes, interfluves
Landform position (two-dimensional): Footslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey fluviomarine deposits

Typical profile

A - 0 to 6 inches: silt loam
BE - 6 to 10 inches: silt loam
Bt1 - 10 to 21 inches: silty clay loam
Bt2 - 21 to 49 inches: silty clay
BC - 49 to 80 inches: clay loam

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Properties and qualities

Slope: 10 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Downer

Setting

Landform: Interfluvies, knolls
Landform position (two-dimensional): Backslope, shoulder
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Loamy fluviomarine deposits

Typical profile

Ap - 0 to 12 inches: loamy sand
Bt - 12 to 31 inches: sandy loam
BC - 31 to 38 inches: loamy sand
C - 38 to 72 inches: sand

Properties and qualities

Slope: 10 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Galestown

Percent of map unit: 10 percent

Custom Soil Resource Report

Landform: Dunes, terraces, knolls, interfluves
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Riser
Hydric soil rating: No

Fallsington

Percent of map unit: 5 percent
Landform: Depressions, drainageways, drainhead complexes, interfluves, swales
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Hydric soil rating: Yes

CcE—Christiana-Downer complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2ndxd
Elevation: 10 to 390 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Christiana and similar soils: 45 percent
Downer and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Christiana

Setting

Landform: Swales, drainhead complexes, hillslopes, interfluves
Landform position (two-dimensional): Footslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey fluviomarine deposits

Typical profile

A - 0 to 6 inches: silt loam
BE - 6 to 10 inches: silt loam
Bt1 - 10 to 21 inches: silty clay loam
Bt2 - 21 to 49 inches: silty clay
BC - 49 to 80 inches: clay loam

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Very high

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 20 to 40 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Downer

Setting

Landform: Interfluves, knolls

Landform position (two-dimensional): Backslope, shoulder

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Parent material: Loamy fluviomarine deposits

Typical profile

Ap - 0 to 12 inches: loamy sand

Bt - 12 to 31 inches: sandy loam

BC - 31 to 38 inches: loamy sand

C - 38 to 72 inches: sand

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Galestown

Percent of map unit: 10 percent

Landform: Fluviomarine terraces, knolls, dunes

Landform position (three-dimensional): Riser

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Hydric soil rating: No

Issue

Percent of map unit: 5 percent

Landform: Flood plains

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Fallsington

Percent of map unit: 5 percent

Landform: Depressions, swales, drainageways

Down-slope shape: Concave

Across-slope shape: Concave, linear

Hydric soil rating: Yes

CdD—Christiana-Downer-Urban land complex, 5 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2ndxh

Elevation: 10 to 390 feet

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Farmland classification: Not prime farmland

Map Unit Composition

Christiana and similar soils: 30 percent

Downer and similar soils: 25 percent

Urban land: 20 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Christiana

Setting

Landform: Interfluves, swales, drainhead complexes, hillslopes

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Clayey fluviomarine deposits

Typical profile

A - 0 to 6 inches: silt loam

BE - 6 to 10 inches: silt loam

Bt1 - 10 to 21 inches: silty clay loam

Bt2 - 21 to 49 inches: silty clay

BC - 49 to 80 inches: clay loam

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Downer

Setting

Landform: Interfluves, knolls
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Loamy fluviomarine deposits

Typical profile

Ap - 0 to 12 inches: loamy sand
Bt - 12 to 31 inches: sandy loam
BC - 31 to 38 inches: loamy sand
C - 38 to 72 inches: sand

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Urban Land

Setting

Landform: Flats
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Human transported material

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: 10 inches to
Runoff class: Very high

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Udorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Issue

Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Galestown

Percent of map unit: 5 percent
Landform: Dunes, interfluves, knolls, terraces
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluve, riser
Hydric soil rating: No

Sassafras

Percent of map unit: 5 percent
Landform: Hillslopes, interfluves
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Croom

Percent of map unit: 5 percent
Landform: Interfluves, hillslopes
Hydric soil rating: No

CF—Codus and Hatboro soils, frequently flooded

Map Unit Setting

National map unit symbol: 2ndy4
Elevation: 200 to 600 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Codus and similar soils: 40 percent
Hatboro and similar soils: 40 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hatboro

Setting

Landform: Channels on flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mica bearing loamy alluvium

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 8 inches: silt loam
Bg - 8 to 18 inches: silt loam
Cg - 18 to 66 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 10 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water storage in profile: Very high (about 12.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

Description of Codorus

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mica bearing loamy alluvium

Typical profile

A - 0 to 1 inches: silt loam
Bw - 1 to 57 inches: loam
Bg - 57 to 63 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water storage in profile: High (about 11.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Fluvaquentic dystrodepts, coarse-loamy

Percent of map unit: 10 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Comus

Percent of map unit: 10 percent
Landform: Flood plains, natural levees
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

CrB—Croom gravelly sandy loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2ndwn

Elevation: 10 to 370 feet

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Croom and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Croom

Setting

Landform: Knolls, interfluves

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Nose slope, head slope, side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Gravelly fluviomarine deposits

Typical profile

Ap1 - 0 to 1 inches: gravelly sandy loam

Ap2 - 1 to 9 inches: gravelly sandy loam

Bt1 - 9 to 13 inches: very gravelly clay loam

Bt2 - 13 to 30 inches: extremely gravelly sandy clay loam

Bt3 - 30 to 54 inches: extremely gravelly sandy clay loam

BCt - 54 to 66 inches: extremely gravelly sandy clay loam

BC - 66 to 80 inches: extremely gravelly coarse sandy loam

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Custom Soil Resource Report

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Woodstown

Percent of map unit: 15 percent

Landform: Drainhead complexes, interfluves, broad interstream divides, depressions, fluviomarine terraces, swales

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tread

Down-slope shape: Linear, concave

Across-slope shape: Linear, concave

Hydric soil rating: No

Aquasco

Percent of map unit: 5 percent

Landform: Broad interstream divides

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

CrD—Croom gravelly sandy loam, 10 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2ndwq

Elevation: 10 to 370 feet

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Farmland classification: Not prime farmland

Map Unit Composition

Croom and similar soils: 75 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Croom

Setting

Landform: Interfluves, knolls, hillslopes

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Nose slope, head slope, side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Gravelly fluviomarine deposits

Typical profile

Ap1 - 0 to 1 inches: gravelly sandy loam

Ap2 - 1 to 9 inches: gravelly sandy loam

Custom Soil Resource Report

Bt1 - 9 to 13 inches: very gravelly clay loam
Bt2 - 13 to 30 inches: extremely gravelly sandy clay loam
Bt3 - 30 to 54 inches: extremely gravelly sandy clay loam
BCt - 54 to 66 inches: extremely gravelly sandy clay loam
BC - 66 to 80 inches: extremely gravelly coarse sandy loam

Properties and qualities

Slope: 10 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Woodstown

Percent of map unit: 10 percent
Landform: Drainhead complexes, broad interstream divides, swales, fluviomarine terraces, depressions, interfluves
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Hydric soil rating: No

Marr

Percent of map unit: 10 percent
Landform: Knolls, interfluves
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Beltsville

Percent of map unit: 5 percent
Landform: Broad interstream divides
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Hydric soil rating: No

DoB—Downer-Hammonton complex, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2p27r
Elevation: 10 to 120 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Downer and similar soils: 55 percent
Hammonton and similar soils: 25 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Downer

Setting

Landform: Knolls, interfluves, broad interstream divides
Landform position (two-dimensional): Summit
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Loamy fluviomarine deposits

Typical profile

Ap - 0 to 12 inches: loamy sand
Bt - 12 to 31 inches: sandy loam
BC - 31 to 38 inches: loamy sand
C - 38 to 72 inches: sand

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Hammonton

Setting

Landform: Depressions, interfluves, swales
Landform position (two-dimensional): Summit
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Parent material: Loamy fluviomarine deposits

Typical profile

A - 0 to 12 inches: loamy sand
Bt - 12 to 25 inches: sandy loam
BC - 25 to 66 inches: stratified coarse sand to loamy coarse sand to loamy sand

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Phalanx

Percent of map unit: 10 percent
Landform: Interfluves
Landform position (two-dimensional): Summit
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Russett

Percent of map unit: 5 percent
Landform: Interfluves, swales
Landform position (two-dimensional): Footslope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Patapsco

Percent of map unit: 5 percent
Landform: Broad interstream divides, knolls
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

DoC—Downer-Hamonton complex, 5 to 10 percent slopes

Map Unit Setting

National map unit symbol: 2p27s

Elevation: 10 to 200 feet

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Downer and similar soils: 50 percent

Hammonton and similar soils: 25 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Downer

Setting

Landform: Interfluves, broad interstream divides, knolls

Landform position (two-dimensional): Summit

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Parent material: Loamy fluviomarine deposits

Typical profile

Ap - 0 to 12 inches: loamy sand

Bt - 12 to 31 inches: sandy loam

BC - 31 to 38 inches: loamy sand

C - 38 to 72 inches: sand

Properties and qualities

Slope: 5 to 10 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: A

Hydric soil rating: No

Description of Hammonton

Setting

Landform: Swales, depressions, interfluves
Landform position (two-dimensional): Summit
Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Parent material: Loamy fluviomarine deposits

Typical profile

A - 0 to 12 inches: loamy sand
Bt - 12 to 25 inches: sandy loam
BC - 25 to 66 inches: stratified coarse sand to loamy coarse sand to loamy sand

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Phalanx

Percent of map unit: 10 percent
Landform: Interfluves
Landform position (two-dimensional): Summit
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Patapsco

Percent of map unit: 5 percent
Landform: Interfluves
Landform position (two-dimensional): Shoulder, backslope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Fort mott

Percent of map unit: 5 percent
Landform: Interfluves
Landform position (two-dimensional): Shoulder, backslope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Russett

Percent of map unit: 5 percent
Landform: Swales, drainhead complexes, interfluves
Landform position (two-dimensional): Backslope, footslope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

DoD—Downer-Hammonton complex, 10 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2p27t
Elevation: 10 to 120 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Downer and similar soils: 50 percent
Hammonton and similar soils: 25 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Downer

Setting

Landform: Broad interstream divides, interfluves, knolls
Landform position (two-dimensional): Summit
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Loamy fluviomarine deposits

Typical profile

Ap - 0 to 12 inches: loamy sand
Bt - 12 to 31 inches: sandy loam
BC - 31 to 38 inches: loamy sand
C - 38 to 72 inches: sand

Properties and qualities

Slope: 10 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Custom Soil Resource Report

Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Hydric soil rating: No

Description of Hammonton

Setting

Landform: Depressions, interfluves, swales

Landform position (two-dimensional): Summit

Down-slope shape: Concave, linear

Across-slope shape: Concave, linear

Parent material: Loamy fluviomarine deposits

Typical profile

A - 0 to 12 inches: loamy sand

Bt - 12 to 25 inches: sandy loam

BC - 25 to 66 inches: stratified coarse sand to loamy coarse sand to loamy sand

Properties and qualities

Slope: 10 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)

Depth to water table: About 20 to 40 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Galestown

Percent of map unit: 10 percent

Landform: Interfluves

Landform position (two-dimensional): Backslope

Hydric soil rating: No

Sassafras

Percent of map unit: 5 percent

Landform: Interfluves

Landform position (two-dimensional): Backslope

Hydric soil rating: No

Russett

Percent of map unit: 5 percent

Landform: Interfluves, swales

Landform position (two-dimensional): Footslope

Hydric soil rating: No

Christiana

Percent of map unit: 5 percent

Landform: Swales, interfluves

Landform position (two-dimensional): Footslope

Hydric soil rating: No

Eka—Elkton silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2p28z

Elevation: 10 to 210 feet

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 180 to 210 days

Farmland classification: Not prime farmland

Map Unit Composition

Elkton and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elkton

Setting

Landform: Fluvio-marine terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Silty eolian deposits over loamy fluvio-marine deposits

Typical profile

A - 0 to 2 inches: silt loam

Eg - 2 to 7 inches: silt loam

Btg1 - 7 to 38 inches: silty clay loam

Btg2 - 38 to 54 inches: clay loam

2CBg - 54 to 72 inches: sandy clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 to 10 inches

Frequency of flooding: None

Frequency of ponding: Occasional

Available water storage in profile: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: C/D

Hydric soil rating: Yes

Minor Components

Fallsington

Percent of map unit: 5 percent

Landform: Depressions, swales, drainageways

Down-slope shape: Concave, linear

Across-slope shape: Concave

Hydric soil rating: Yes

Lenni, undrained

Percent of map unit: 5 percent

Landform: Fluvio-marine terraces, depressions on broad interstream divides

Landform position (three-dimensional): Tread

Down-slope shape: Linear, concave

Across-slope shape: Linear, concave

Hydric soil rating: Yes

Piccowaxen

Percent of map unit: 5 percent

Landform: Terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear, concave

Across-slope shape: Linear

Hydric soil rating: No

GbD—Galestown-Urban land complex, 5 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2ndw0

Elevation: 10 to 210 feet

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Farmland classification: Not prime farmland

Map Unit Composition

Galestown and similar soils: 65 percent

Urban land: 25 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Galestown

Setting

Landform: Fluviomarine terraces, broad interstream divides, interfluves

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tread

Down-slope shape: Linear, convex

Across-slope shape: Linear

Parent material: Sandy eolian deposits and/or fluviomarine deposits

Typical profile

Ap - 0 to 10 inches: loamy sand

E - 10 to 21 inches: loamy sand

Bt - 21 to 48 inches: loamy sand

BC - 48 to 72 inches: loamy sand

Properties and qualities

Slope: 5 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Hydric soil rating: No

Description of Urban Land

Properties and qualities

Slope: 5 to 15 percent

Depth to restrictive feature: 10 inches to

Runoff class: Very high

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Downer

Percent of map unit: 5 percent

Landform: Interfluves, broad interstream divides, knolls

Landform position (two-dimensional): Summit

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Hydric soil rating: No

Swedesboro

Percent of map unit: 5 percent
Landform: Terraces
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

RcA—Russett-Christiana complex, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ndx7
Elevation: 10 to 390 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Russett and similar soils: 45 percent
Christiana and similar soils: 25 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Russett

Setting

Landform: Broad interstream divides, interfluves, drainhead complexes, swales
Landform position (two-dimensional): Footslope, summit
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy fluviomarine deposits

Typical profile

A - 0 to 4 inches: fine sandy loam
Bt1 - 4 to 7 inches: loam
Bt2 - 7 to 13 inches: loam
Bt3 - 13 to 46 inches: clay loam
BCg1 - 46 to 57 inches: sandy clay loam
BCg2 - 57 to 77 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None

Custom Soil Resource Report

Frequency of ponding: None

Available water storage in profile: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C

Hydric soil rating: No

Description of Christiana

Setting

Landform: Drainhead complexes, swales, hillslopes, interfluves

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Clayey fluviomarine deposits

Typical profile

A - 0 to 6 inches: silt loam

BE - 6 to 10 inches: silt loam

Bt1 - 10 to 21 inches: silty clay loam

Bt2 - 21 to 49 inches: silty clay

BC - 49 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 20 to 40 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Beltsville

Percent of map unit: 10 percent

Landform: Interfluves

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Fallsington

Percent of map unit: 10 percent

Landform: Drainhead complexes, swales, depressions, drainageways

Down-slope shape: Linear, concave

Across-slope shape: Concave

Hydric soil rating: Yes

Phalanx

Percent of map unit: 5 percent

Landform: Interfluves

Landform position (two-dimensional): Summit

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Issue

Percent of map unit: 5 percent

Landform: Flood plains

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

RcB—Russett-Christiana complex, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2ndx8

Elevation: 10 to 390 feet

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 175 to 220 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Russett and similar soils: 40 percent

Christiana and similar soils: 35 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Russett

Setting

Landform: Swales, broad interstream divides, interfluves, drainhead complexes

Landform position (two-dimensional): Footslope, summit

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits

Typical profile

A - 0 to 4 inches: fine sandy loam

Bt1 - 4 to 7 inches: loam

Bt2 - 7 to 13 inches: loam

Bt3 - 13 to 46 inches: clay loam

BCg1 - 46 to 57 inches: sandy clay loam

Custom Soil Resource Report

BCg2 - 57 to 77 inches: silty clay loam

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)

Depth to water table: About 20 to 40 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Hydric soil rating: No

Description of Christiana

Setting

Landform: Swales, drainhead complexes, hillslopes, interfluves

Landform position (two-dimensional): Footslope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Clayey fluviomarine deposits

Typical profile

A - 0 to 6 inches: silt loam

BE - 6 to 10 inches: silt loam

Bt1 - 10 to 21 inches: silty clay loam

Bt2 - 21 to 49 inches: silty clay

BC - 49 to 80 inches: clay loam

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 20 to 40 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Hambrook

Percent of map unit: 10 percent

Landform: Fluvio-marine terraces, knolls, depressions, flats

Hydric soil rating: No

Fallsington

Percent of map unit: 5 percent

Landform: Depressions, drainageways, drainhead complexes, swales

Down-slope shape: Concave, linear

Across-slope shape: Concave

Hydric soil rating: Yes

Hammonton

Percent of map unit: 5 percent

Hydric soil rating: No

Sassafras

Percent of map unit: 5 percent

Hydric soil rating: No

RuB—Russett-Christiana-Urban land complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2ndxg

Elevation: 10 to 390 feet

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 30 percent

Russett and similar soils: 30 percent

Christiana and similar soils: 30 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Russett

Setting

Landform: Broad interstream divides, interfluvies, drainhead complexes, swales

Landform position (two-dimensional): Footslope, summit

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loamy fluvio-marine deposits

Typical profile

A - 0 to 4 inches: fine sandy loam

Custom Soil Resource Report

Bt1 - 4 to 7 inches: loam
Bt2 - 7 to 13 inches: loam
Bt3 - 13 to 46 inches: clay loam
BCg1 - 46 to 57 inches: sandy clay loam
BCg2 - 57 to 77 inches: silty clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Christiana

Setting

Landform: Hillslopes, interfluves, drainhead complexes, swales
Landform position (two-dimensional): Footslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey fluviomarine deposits

Typical profile

A - 0 to 6 inches: silt loam
BE - 6 to 10 inches: silt loam
Bt1 - 10 to 21 inches: silty clay loam
Bt2 - 21 to 49 inches: silty clay
BC - 49 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 20 to 40 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e

Custom Soil Resource Report

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Udorthents

Percent of map unit: 5 percent

Hydric soil rating: No

Hammonton

Percent of map unit: 5 percent

Landform: Depressions, interfluves, swales

Landform position (two-dimensional): Summit

Down-slope shape: Concave, linear

Across-slope shape: Concave, linear

Hydric soil rating: No

ScC—Sassafras-Croom complex, 5 to 10 percent slopes

Map Unit Setting

National map unit symbol: 2p28m

Elevation: 10 to 390 feet

Mean annual precipitation: 30 to 50 inches

Mean annual air temperature: 46 to 59 degrees F

Frost-free period: 175 to 220 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Sassafras and similar soils: 45 percent

Croom and similar soils: 35 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sassafras

Setting

Landform: Knolls, fluviomarine terraces, broad interstream divides

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Custom Soil Resource Report

Parent material: Loamy fluviomarine deposits

Typical profile

Ap - 0 to 9 inches: sandy loam
E - 9 to 15 inches: sandy loam
Bt - 15 to 30 inches: loam
BC - 30 to 37 inches: sandy loam
C - 37 to 80 inches: loamy sand

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Croom

Setting

Landform: Ravines
Landform position (three-dimensional): Nose slope, head slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Gravelly fluviomarine deposits

Typical profile

Ap1 - 0 to 1 inches: gravelly sandy loam
Ap2 - 1 to 9 inches: gravelly sandy loam
Bt1 - 9 to 13 inches: very gravelly clay loam
Bt2 - 13 to 30 inches: extremely gravelly sandy clay loam
Bt3 - 30 to 54 inches: extremely gravelly sandy clay loam
BCt - 54 to 66 inches: extremely gravelly sandy clay loam
BC - 66 to 80 inches: extremely gravelly coarse sandy loam

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Ingleside

Percent of map unit: 5 percent

Landform: Depressions, fluviomarine terraces, broad interstream divides

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Hammonton

Percent of map unit: 5 percent

Landform: Swales, depressions, interfluves

Landform position (two-dimensional): Summit

Down-slope shape: Linear, concave

Across-slope shape: Concave, linear

Hydric soil rating: No

Christiana

Percent of map unit: 5 percent

Landform: Hillslopes, interfluves, swales, drainhead complexes

Landform position (two-dimensional): Footslope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Russett

Percent of map unit: 5 percent

Landform: Interfluves, swales

Landform position (two-dimensional): Footslope

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

UdaF—Udorthents, highway, 0 to 65 percent slopes

Map Unit Setting

National map unit symbol: 2ndvg

Mean annual precipitation: 40 to 50 inches

Mean annual air temperature: 52 to 57 degrees F

Frost-free period: 180 to 210 days

Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, highway, and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Highway

Setting

Parent material: Human transported material

Properties and qualities

Slope: 0 to 65 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Very high

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Building Site Development

Building site development interpretations are designed to be used as tools for evaluating soil suitability and identifying soil limitations for various construction purposes. As part of the interpretation process, the rating applies to each soil in its described condition and does not consider present land use. Example interpretations can include corrosion of concrete and steel, shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping.

Dwellings Without Basements (Work supplies)

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper.

The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification of the soil. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use.

Custom Soil Resource Report

"Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

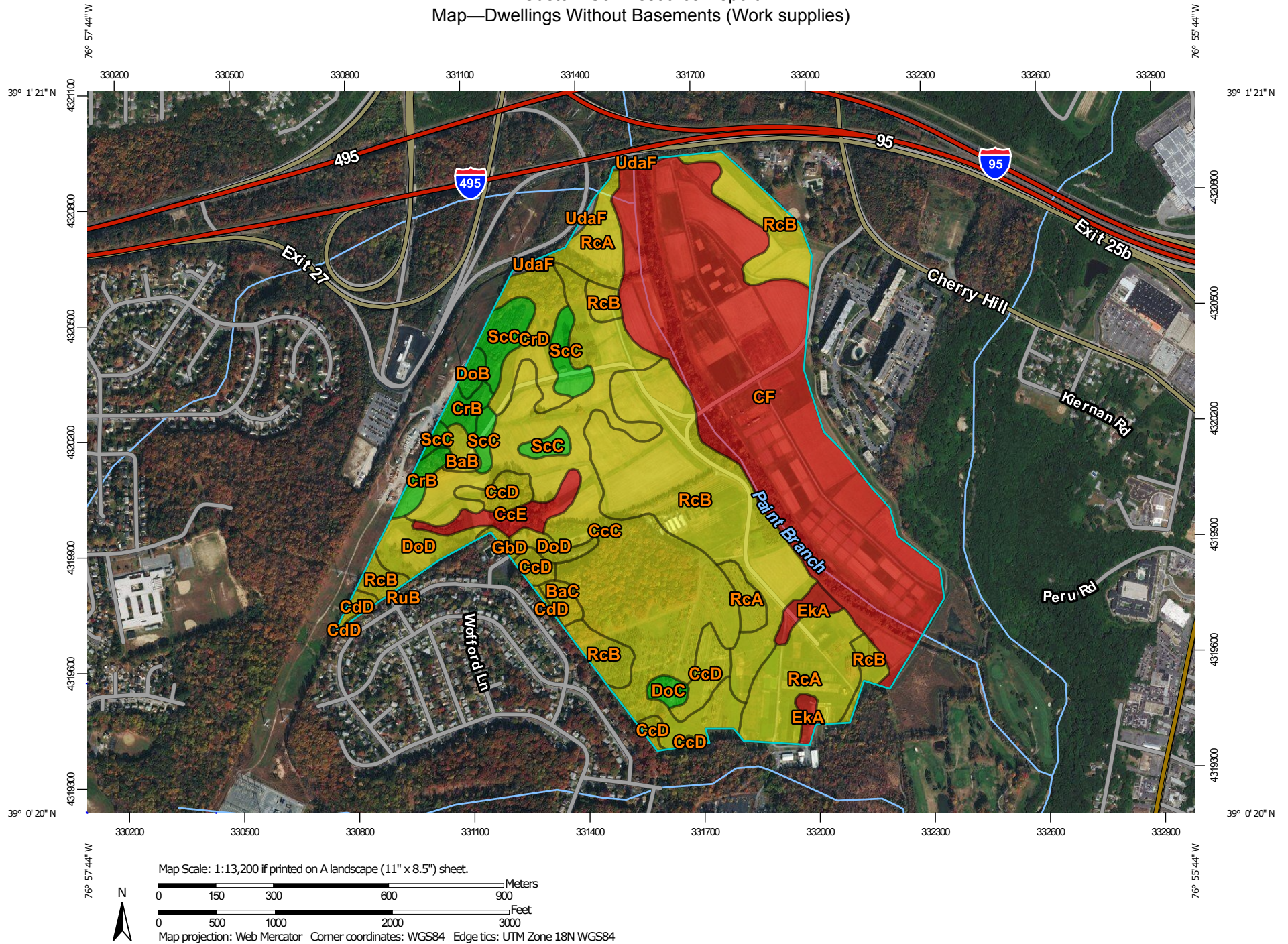
Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.


Custom Soil Resource Report

Map—Dwellings Without Basements (Work supplies)




MAP LEGEND

Area of Interest (AOI)





 Area of Interest (AOI)

Background





 Aerial Photography

Soils





Soil Rating Polygons

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available


Soil Rating Lines

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available






Soil Rating Points

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Prince George's County, Maryland
 Survey Area Data: Version 16, Sep 11, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 3, 2015—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Tables—Dwellings Without Basements (Work supplies)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BaB	Beltsville silt loam, 2 to 5 percent slopes	Somewhat limited	Beltsville (70%)	Depth to saturated zone (0.39)	1.9	0.6%
BaC	Beltsville silt loam, 5 to 10 percent slopes	Somewhat limited	Beltsville (70%)	Depth to saturated zone (0.39)	2.0	0.6%
CcC	Christiana-Downer complex, 5 to 10 percent slopes	Somewhat limited	Christiana (45%)	Depth to saturated zone (0.39)	70.3	21.2%
CcD	Christiana-Downer complex, 10 to 15 percent slopes	Somewhat limited	Christiana (50%)	Slope (0.63)	11.2	3.4%
				Depth to saturated zone (0.39)		
			Downer (35%)	Slope (0.84)		
CcE	Christiana-Downer complex, 15 to 25 percent slopes	Very limited	Christiana (45%)	Slope (1.00)	5.3	1.6%
				Depth to saturated zone (0.39)		
			Downer (35%)	Slope (1.00)		
CdD	Christiana-Downer-Urban land complex, 5 to 15 percent slopes	Somewhat limited	Christiana (30%)	Depth to saturated zone (0.39)	0.4	0.1%
				Slope (0.16)		
			Downer (25%)	Slope (0.16)		
			Sassafras (5%)	Slope (0.16)		
CF	Codorus and Hatboro soils, frequently flooded	Very limited	Codorus (40%)	Flooding (1.00)	104.2	31.5%
				Depth to saturated zone (0.39)		
			Hatboro (40%)	Ponding (1.00)		
				Flooding (1.00)		
				Depth to saturated zone (1.00)		
CrB	Croom gravelly sandy loam, 2 to 5 percent slopes	Not limited	Croom (80%)		5.0	1.5%
CrD	Croom gravelly sandy loam, 10 to 15 percent slopes	Somewhat limited	Croom (75%)	Slope (0.63)	9.4	2.8%
DoB	Downer-Hammonton	Not limited	Downer (55%)		1.5	0.5%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
	complex, 2 to 5 percent slopes		Phalanx (10%)			
DoC	Downer-Hamonton complex, 5 to 10 percent slopes	Not limited	Downer (50%)		1.6	0.5%
			Phalanx (10%)			
			Fort Mott (5%)			
			Patapsco (5%)			
DoD	Downer-Hamonton complex, 10 to 15 percent slopes	Somewhat limited	Downer (50%)	Slope (0.84)	8.3	2.5%
			Hamonton (25%)	Slope (0.84)		
				Depth to saturated zone (0.39)		
EkA	Elkton silt loam, 0 to 2 percent slopes	Very limited	Elkton (85%)	Ponding (1.00)	3.7	1.1%
				Depth to saturated zone (1.00)		
			Fallsington (5%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
			Lenni, undrained (5%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Shrink-swell (0.75)		
			Piccowaxen (5%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
GbD	Galestown-Urban land complex, 5 to 15 percent slopes	Somewhat limited	Galestown (65%)	Slope (0.16)	0.7	0.2%
RcA	Russett-Christiana complex, 0 to 2 percent slopes	Somewhat limited	Russett (45%)	Depth to saturated zone (0.39)	27.2	8.2%
			Christiana (25%)	Depth to saturated zone (0.39)		
RcB	Russett-Christiana complex, 2 to 5 percent slopes	Somewhat limited	Russett (40%)	Depth to saturated zone (0.39)	64.6	19.5%
			Christiana (35%)	Depth to saturated zone (0.39)		
RuB	Russett-Christiana-Urban land	Somewhat limited	Russett (30%)	Depth to saturated zone (0.39)	0.0	0.0%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
	complex, 0 to 5 percent slopes		Christiana (30%)	Depth to saturated zone (0.39)		
ScC	Sassafras-Croom complex, 5 to 10 percent slopes	Not limited	Sassafras (45%)		12.2	3.7%
			Croom (35%)			
UdaF	Udorthents, highway, 0 to 65 percent slopes	Not rated	Udorthents, highway (100%)		1.4	0.4%
Totals for Area of Interest					331.0	100.0%

Rating	Acres in AOI	Percent of AOI
Somewhat limited	196.0	59.2%
Very limited	113.3	34.2%
Not limited	20.3	6.1%
Null or Not Rated	1.4	0.4%
Totals for Area of Interest	331.0	100.0%

Rating Options—Dwellings Without Basements (Work supplies)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Unpaved Local Roads and Streets

Unpaved local roads and streets are those roads and streets that carry traffic year round but have a graded surface of local soil material or aggregate.

Description:

Unpaved local roads and streets are those roads and streets that carry traffic year round but have a graded surface of local soil material or aggregate.

The roads and streets consist of

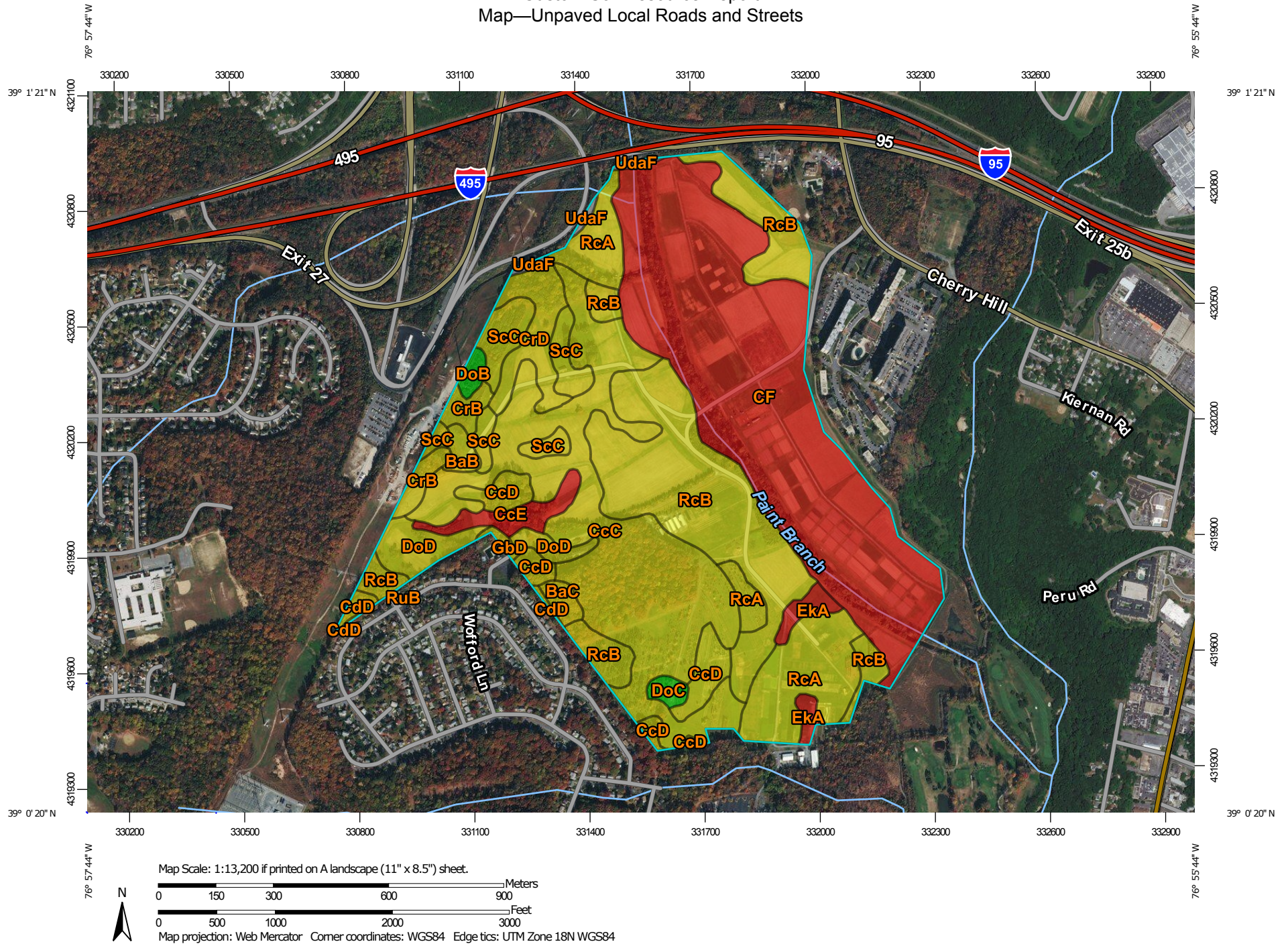
(1) the underlying local soil material, either cut or fill, which is called "the sub-grade";

(2) the surface, which may be the same as the subgrade or may have aggregate such as crushed limestone added.

Custom Soil Resource Report


They are graded to shed water, and conventional drainage measures are provided. These roads and streets are built mainly from the soil at the site. Soil interpretations for local roads and streets are used as a tool in evaluating soil suitability and identifying soil limitations for the practice. The rating is for soils in their present condition and does not consider present land use. Soil properties and qualities that affect local roads and streets are those that influence the ease of excavation and grading and the traffic-supporting capacity. The properties and qualities that affect the ease of excavation and grading are hardness of bedrock or a cemented pan, depth to bedrock or a cemented pan, depth to a water table, flooding, the amount of large stones, and slope. The properties that affect traffic-supporting capacity are soil strength as inferred from the AASHTO group index and the Unified classification, subsidence, shrink-swell behavior, potential frost action, and depth to the seasonal high water table. The dust generating tendency of the soil is also considered.

Custom Soil Resource Report Map—Unpaved Local Roads and Streets




MAP LEGEND

Area of Interest (AOI)





 Area of Interest (AOI)

Background





 Aerial Photography

Soils





Soil Rating Polygons

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available


Soil Rating Lines

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available






Soil Rating Points

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Prince George's County, Maryland
 Survey Area Data: Version 16, Sep 11, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 3, 2015—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Custom Soil Resource Report

Tables—Unpaved Local Roads and Streets

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BaB	Beltsville silt loam, 2 to 5 percent slopes	Somewhat limited	Beltsville (70%)	Frost action (0.50)	1.9	0.6%
				Depth to saturated zone (0.19)		
				Dusty (0.07)		
			Reybold (10%)	Frost action (0.50)		
				Dusty (0.08)		
			Grosstown (5%)	Frost action (0.50)		
				Dusty (0.08)		
BaC	Beltsville silt loam, 5 to 10 percent slopes	Somewhat limited	Beltsville (70%)	Frost action (0.50)	2.0	0.6%
				Depth to saturated zone (0.19)		
				Dusty (0.07)		
			Grosstown (15%)	Frost action (0.50)		
				Dusty (0.08)		
			Reybold (5%)	Frost action (0.50)		
				Dusty (0.08)		
CcC	Christiana-Downer complex, 5 to 10 percent slopes	Somewhat limited	Christiana (45%)	Frost action (0.50)	70.3	21.2%
				Depth to saturated zone (0.19)		
				Low strength (0.10)		
				Dusty (0.08)		
CcD	Christiana-Downer complex, 10 to 15 percent slopes	Somewhat limited	Christiana (50%)	Slope (0.63)	11.2	3.4%
				Frost action (0.50)		
				Depth to saturated zone (0.19)		
				Low strength (0.10)		
				Dusty (0.08)		
			Downer (35%)	Slope (0.84)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
CcE	Christiana-Downer complex, 15 to 25 percent slopes	Very limited	Christiana (45%)	Slope (1.00)	5.3	1.6%
				Frost action (0.50)		
				Depth to saturated zone (0.19)		
				Low strength (0.10)		
				Dusty (0.08)		
			Downer (35%)	Slope (1.00)		
CdD	Christiana-Downer-Urban land complex, 5 to 15 percent slopes	Somewhat limited	Christiana (30%)	Frost action (0.50)	0.4	0.1%
				Depth to saturated zone (0.19)		
				Slope (0.16)		
				Low strength (0.10)		
				Dusty (0.08)		
			Downer (25%)	Slope (0.16)		
			Sassafras (5%)	Frost action (0.50)		
				Slope (0.16)		
CF	Codorus and Hatboro soils, frequently flooded	Very limited	Codorus (40%)	Flooding (1.00)	104.2	31.5%
				Frost action (0.50)		
				Depth to saturated zone (0.19)		
				Dusty (0.06)		
			Hatboro (40%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Flooding (1.00)		
				Dusty (0.07)		
CrB	Croom gravelly sandy loam, 2 to 5 percent slopes	Somewhat limited	Croom (80%)	Frost action (0.50)	5.0	1.5%
				Dusty (0.02)		
CrD	Croom gravelly sandy loam, 10 to 15 percent slopes	Somewhat limited	Croom (75%)	Slope (0.63)	9.4	2.8%
				Frost action (0.50)		
				Dusty (0.02)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
DoB	Downer-Hammonton complex, 2 to 5 percent slopes	Not limited	Downer (55%)		1.5	0.5%
			Phalanx (10%)	Dusty (0.00)		
DoC	Downer-Hamonton complex, 5 to 10 percent slopes	Not limited	Downer (50%)		1.6	0.5%
			Phalanx (10%)	Dusty (0.00)		
			Fort Mott (5%)			
			Patapsco (5%)			
DoD	Downer-Hammonton complex, 10 to 15 percent slopes	Somewhat limited	Downer (50%)	Slope (0.84)	8.3	2.5%
			Hammonton (25%)	Slope (0.84)		
				Depth to saturated zone (0.19)		
EkA	Elkton silt loam, 0 to 2 percent slopes	Very limited	Elkton (85%)	Ponding (1.00)	3.7	1.1%
				Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Low strength (1.00)		
				Dusty (0.08)		
			Fallsington (5%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Dusty (0.01)		
			Lenni, undrained (5%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Low strength (1.00)		
				Shrink-swell (0.75)		
			Piccowaxen (5%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Frost action (1.00)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Low strength (0.80)		
				Dusty (0.06)		
GbD	Galestown-Urban land complex, 5 to 15 percent slopes	Somewhat limited	Galestown (65%)	Slope (0.16)	0.7	0.2%
RcA	Russett-Christiana complex, 0 to 2 percent slopes	Somewhat limited	Russett (45%)	Frost action (0.50)	27.2	8.2%
				Depth to saturated zone (0.19)		
				Dusty (0.06)		
				Low strength (0.05)		
			Christiana (25%)	Frost action (0.50)		
				Depth to saturated zone (0.19)		
				Low strength (0.10)		
				Dusty (0.08)		
RcB	Russett-Christiana complex, 2 to 5 percent slopes	Somewhat limited	Russett (40%)	Frost action (0.50)	64.6	19.5%
				Depth to saturated zone (0.19)		
				Dusty (0.06)		
				Low strength (0.05)		
			Christiana (35%)	Frost action (0.50)		
				Depth to saturated zone (0.19)		
				Low strength (0.10)		
				Dusty (0.08)		
RuB	Russett-Christiana-Urban land complex, 0 to 5 percent slopes	Somewhat limited	Russett (30%)	Frost action (0.50)	0.0	0.0%
				Depth to saturated zone (0.19)		
				Dusty (0.06)		
				Low strength (0.05)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Christiana (30%)	Frost action (0.50)		
				Depth to saturated zone (0.19)		
				Low strength (0.10)		
				Dusty (0.08)		
ScC	Sassafras-Croom complex, 5 to 10 percent slopes	Somewhat limited	Sassafras (45%)	Frost action (0.50)	12.2	3.7%
				Dusty (0.02)		
			Croom (35%)	Frost action (0.50)		
				Dusty (0.02)		
UdaF	Udorthents, highway, 0 to 65 percent slopes	Not rated	Udorthents, highway (100%)		1.4	0.4%
Totals for Area of Interest					331.0	100.0%

Rating	Acres in AOI	Percent of AOI
Somewhat limited	213.2	64.4%
Very limited	113.3	34.2%
Not limited	3.1	0.9%
Null or Not Rated	1.4	0.4%
Totals for Area of Interest	331.0	100.0%

Rating Options—Unpaved Local Roads and Streets

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Local Roads and Streets

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of

large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

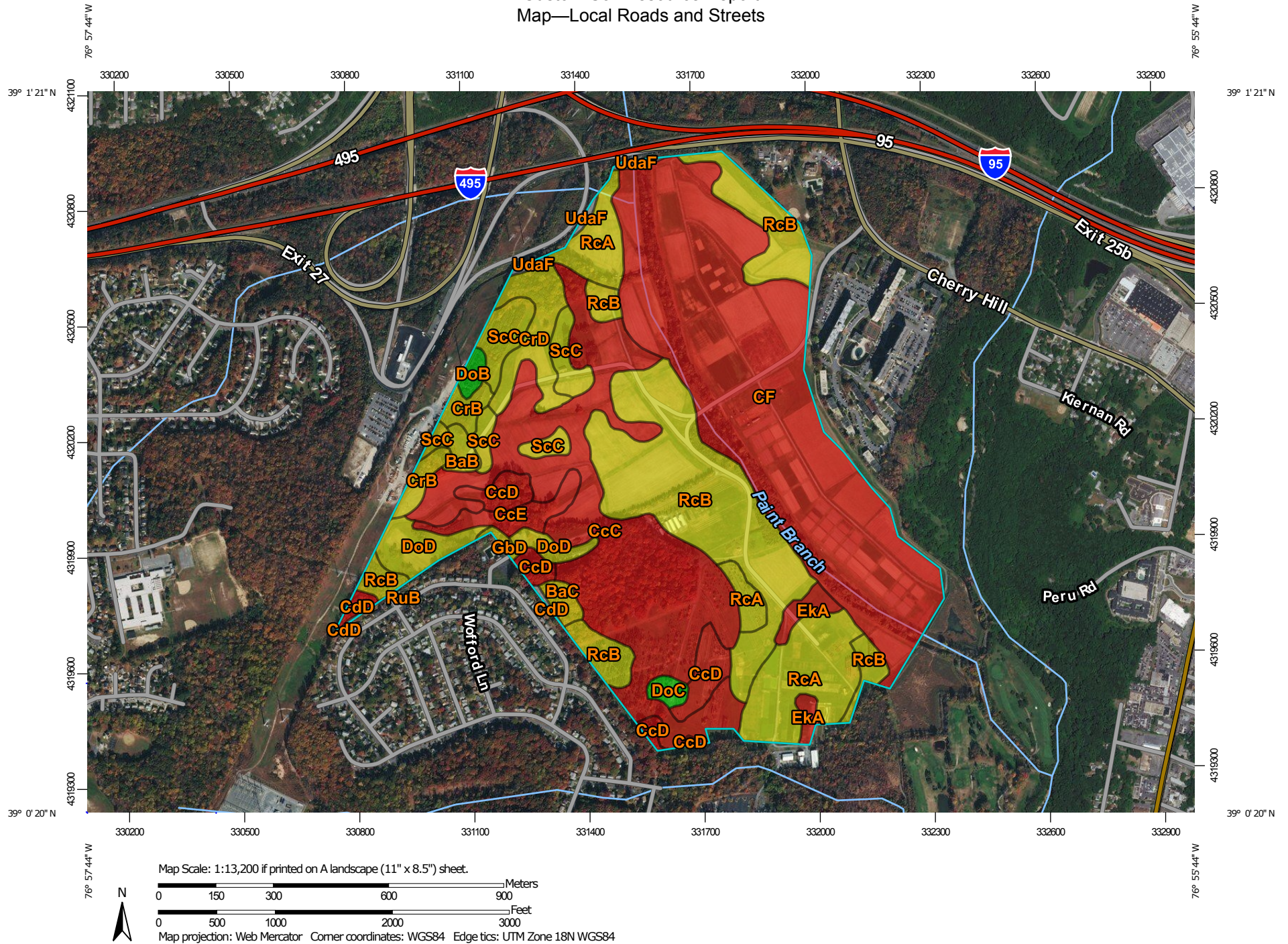
The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.


Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report Map—Local Roads and Streets




MAP LEGEND

Area of Interest (AOI)





 Area of Interest (AOI)

Background





 Aerial Photography

Soils





Soil Rating Polygons

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available


Soil Rating Lines

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available






Soil Rating Points

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Prince George's County, Maryland
 Survey Area Data: Version 16, Sep 11, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 3, 2015—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Custom Soil Resource Report

Tables—Local Roads and Streets

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BaB	Beltsville silt loam, 2 to 5 percent slopes	Somewhat limited	Beltsville (70%)	Frost action (0.50)	1.9	0.6%
				Depth to saturated zone (0.19)		
			Reybold (10%)	Frost action (0.50)		
			Grosstown (5%)	Frost action (0.50)		
BaC	Beltsville silt loam, 5 to 10 percent slopes	Somewhat limited	Beltsville (70%)	Frost action (0.50)	2.0	0.6%
				Depth to saturated zone (0.19)		
			Grosstown (15%)	Frost action (0.50)		
			Reybold (5%)	Frost action (0.50)		
CcC	Christiana-Downer complex, 5 to 10 percent slopes	Very limited	Christiana (45%)	Low strength (1.00)	70.3	21.2%
				Frost action (0.50)		
				Depth to saturated zone (0.19)		
CcD	Christiana-Downer complex, 10 to 15 percent slopes	Very limited	Christiana (50%)	Low strength (1.00)	11.2	3.4%
				Slope (0.63)		
				Frost action (0.50)		
				Depth to saturated zone (0.19)		
CcE	Christiana-Downer complex, 15 to 25 percent slopes	Very limited	Christiana (45%)	Slope (1.00)	5.3	1.6%
				Low strength (1.00)		
				Frost action (0.50)		
				Depth to saturated zone (0.19)		
			Downer (35%)	Slope (1.00)		
CdD	Christiana-Downer-Urban land complex,	Not rated	Urban land (20%)		0.4	0.1%
			Croom (5%)			

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
	5 to 15 percent slopes		Galestown (5%)			
			Udorthents (5%)			
			Issue (5%)			
CF	Codorus and Hatboro soils, frequently flooded	Very limited	Codorus (40%)	Flooding (1.00)	104.2	31.5%
				Frost action (0.50)		
				Depth to saturated zone (0.19)		
			Hatboro (40%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Flooding (1.00)		
CrB	Croom gravelly sandy loam, 2 to 5 percent slopes	Somewhat limited	Croom (80%)	Frost action (0.50)	5.0	1.5%
CrD	Croom gravelly sandy loam, 10 to 15 percent slopes	Somewhat limited	Croom (75%)	Slope (0.63)	9.4	2.8%
				Frost action (0.50)		
DoB	Downer-Hammonton complex, 2 to 5 percent slopes	Not limited	Downer (55%)		1.5	0.5%
			Phalanx (10%)			
DoC	Downer-Hamonton complex, 5 to 10 percent slopes	Not limited	Downer (50%)		1.6	0.5%
			Phalanx (10%)			
			Fort Mott (5%)			
			Patapsco (5%)			
DoD	Downer-Hammonton complex, 10 to 15 percent slopes	Somewhat limited	Downer (50%)	Slope (0.84)	8.3	2.5%
			Hammonton (25%)	Slope (0.84)		
				Depth to saturated zone (0.19)		
EkA	Elkton silt loam, 0 to 2 percent slopes	Very limited	Elkton (85%)	Ponding (1.00)	3.7	1.1%
				Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Low strength (1.00)		
			Fallsington (5%)	Ponding (1.00)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Ponding (1.00)		
			Lenni, undrained (5%)	Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Low strength (1.00)		
				Shrink-swell (0.75)		
				Ponding (1.00)		
			Piccowaxen (5%)	Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Low strength (0.80)		
GbD	Galestown-Urban land complex, 5 to 15 percent slopes	Somewhat limited	Galestown (65%)	Slope (0.16)	0.7	0.2%
RcA	Russett-Christiana complex, 0 to 2 percent slopes	Somewhat limited	Russett (45%)	Frost action (0.50)	27.2	8.2%
				Depth to saturated zone (0.19)		
				Low strength (0.05)		
RcB	Russett-Christiana complex, 2 to 5 percent slopes	Somewhat limited	Russett (40%)	Frost action (0.50)	64.6	19.5%
				Depth to saturated zone (0.19)		
				Low strength (0.05)		
RuB	Russett-Christiana-Urban land complex, 0 to 5 percent slopes	Not rated	Urban land (30%)		0.0	0.0%
			Udorthents (5%)			
			Hammonton (5%)			
ScC	Sassafras-Croom complex, 5 to 10 percent slopes	Somewhat limited	Sassafras (45%)	Frost action (0.50)	12.2	3.7%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Croom (35%)	Frost action (0.50)		
UdaF	Udorthents, highway, 0 to 65 percent slopes	Not rated	Udorthents, highway (100%)		1.4	0.4%
Totals for Area of Interest					331.0	100.0%

Rating	Acres in AOI	Percent of AOI
Very limited	194.8	58.8%
Somewhat limited	131.4	39.7%
Not limited	3.1	0.9%
Null or Not Rated	1.8	0.5%
Totals for Area of Interest	331.0	100.0%

Rating Options—Local Roads and Streets

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Small Commercial Buildings

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification of the soil). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate

Custom Soil Resource Report

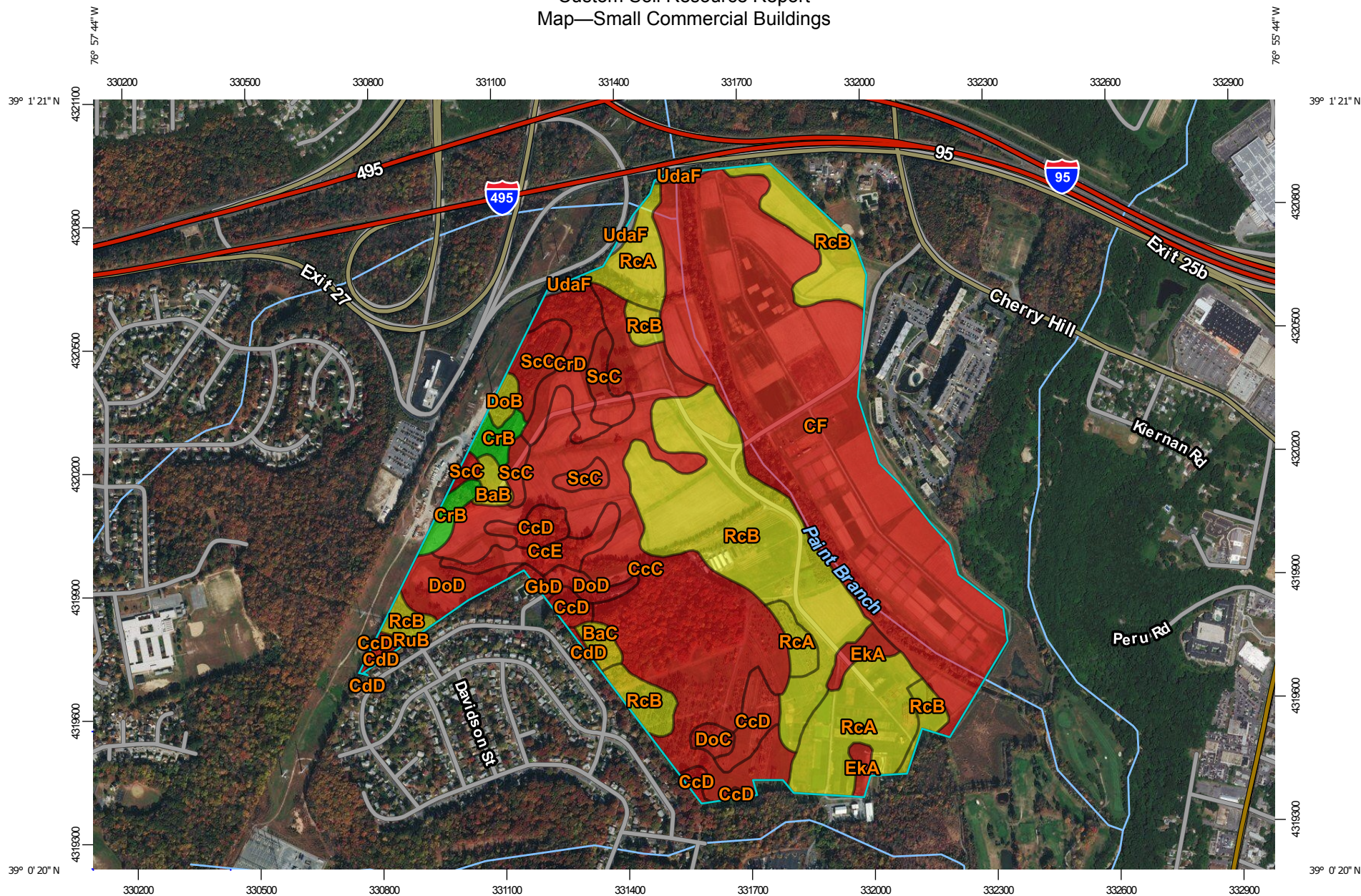
maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

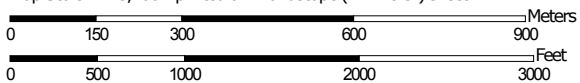
The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report Map—Small Commercial Buildings




Map Scale: 1:13,200 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)





 Area of Interest (AOI)

Background





 Aerial Photography

Soils





Soil Rating Polygons

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available


Soil Rating Lines

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available






Soil Rating Points

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Prince George's County, Maryland
 Survey Area Data: Version 16, Sep 11, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 3, 2015—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Custom Soil Resource Report

Tables—Small Commercial Buildings

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BaB	Beltsville silt loam, 2 to 5 percent slopes	Somewhat limited	Beltsville (70%)	Depth to saturated zone (0.39)	1.9	0.6%
BaC	Beltsville silt loam, 5 to 10 percent slopes	Somewhat limited	Beltsville (70%)	Slope (0.88)	2.0	0.6%
				Depth to saturated zone (0.39)		
			Grosstown (15%)	Slope (0.88)		
			Hoghole (5%)	Slope (0.88)		
			Reybold (5%)	Slope (0.88)		
CcC	Christiana-Downer complex, 5 to 10 percent slopes	Very limited	Christiana (45%)	Slope (1.00)	70.3	21.2%
				Depth to saturated zone (0.39)		
			Downer (30%)	Slope (1.00)		
CcD	Christiana-Downer complex, 10 to 15 percent slopes	Very limited	Christiana (50%)	Slope (1.00)	11.2	3.4%
				Depth to saturated zone (0.39)		
			Downer (35%)	Slope (1.00)		
CcE	Christiana-Downer complex, 15 to 25 percent slopes	Very limited	Christiana (45%)	Slope (1.00)	5.3	1.6%
				Depth to saturated zone (0.39)		
			Downer (35%)	Slope (1.00)		
CdD	Christiana-Downer-Urban land complex, 5 to 15 percent slopes	Very limited	Christiana (30%)	Slope (1.00)	0.4	0.1%
				Depth to saturated zone (0.39)		
			Downer (25%)	Slope (1.00)		
			Sassafras (5%)	Slope (1.00)		
CF	Codorus and Hatboro soils, frequently flooded	Very limited	Codorus (40%)	Flooding (1.00)	104.2	31.5%
				Depth to saturated zone (0.39)		
			Hatboro (40%)	Ponding (1.00)		
				Flooding (1.00)		
				Depth to saturated zone (1.00)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
CrB	Croom gravelly sandy loam, 2 to 5 percent slopes	Not limited	Croom (80%)		5.0	1.5%
CrD	Croom gravelly sandy loam, 10 to 15 percent slopes	Very limited	Croom (75%)	Slope (1.00)	9.4	2.8%
DoB	Downer-Hammonton complex, 2 to 5 percent slopes	Somewhat limited	Downer (55%)	Slope (0.00)	1.5	0.5%
			Hammonton (25%)	Depth to saturated zone (0.39)		
				Slope (0.00)		
DoC	Downer-Hamonton complex, 5 to 10 percent slopes	Very limited	Downer (50%)	Slope (1.00)	1.6	0.5%
			Hammonton (25%)	Slope (1.00)		
				Depth to saturated zone (0.39)		
			Phalanx (10%)	Slope (1.00)		
			Russett (5%)	Slope (1.00)		
				Depth to saturated zone (0.39)		
			Fort Mott (5%)	Slope (1.00)		
DoD	Downer-Hammonton complex, 10 to 15 percent slopes	Very limited	Downer (50%)	Slope (1.00)	8.3	2.5%
			Hammonton (25%)	Slope (1.00)		
				Depth to saturated zone (0.39)		
EkA	Elkton silt loam, 0 to 2 percent slopes	Very limited	Elkton (85%)	Ponding (1.00)	3.7	1.1%
				Depth to saturated zone (1.00)		
			Fallsington (5%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
			Lenni, undrained (5%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Shrink-swell (0.75)		
			Piccowaxen (5%)	Ponding (1.00)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Depth to saturated zone (1.00)		
GbD	Galestown-Urban land complex, 5 to 15 percent slopes	Very limited	Galestown (65%)	Slope (1.00)	0.7	0.2%
RcA	Russett-Christiana complex, 0 to 2 percent slopes	Somewhat limited	Russett (45%)	Depth to saturated zone (0.39)	27.2	8.2%
			Christiana (25%)	Depth to saturated zone (0.39)		
RcB	Russett-Christiana complex, 2 to 5 percent slopes	Somewhat limited	Russett (40%)	Depth to saturated zone (0.39)	64.6	19.5%
			Christiana (35%)	Depth to saturated zone (0.39)		
RuB	Russett-Christiana-Urban land complex, 0 to 5 percent slopes	Somewhat limited	Russett (30%)	Depth to saturated zone (0.39)	0.0	0.0%
			Christiana (30%)	Depth to saturated zone (0.39)		
ScC	Sassafras-Croom complex, 5 to 10 percent slopes	Very limited	Sassafras (45%)	Slope (1.00)	12.2	3.7%
			Croom (35%)	Slope (1.00)		
UdaF	Udorthents, highway, 0 to 65 percent slopes	Not rated	Udorthents, highway (100%)		1.4	0.4%
Totals for Area of Interest					331.0	100.0%

Rating	Acres in AOI	Percent of AOI
Very limited	227.3	68.7%
Somewhat limited	97.3	29.4%
Not limited	5.0	1.5%
Null or Not Rated	1.4	0.4%
Totals for Area of Interest	331.0	100.0%

Rating Options—Small Commercial Buildings

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Land Management

Land management interpretations are tools designed to guide the user in evaluating existing conditions in planning and predicting the soil response to various land management practices, for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture, and rangeland. Example interpretations include suitability for a variety of irrigation practices, log landings, haul roads and major skid trails, equipment operability, site preparation, suitability for hand and mechanical planting, potential erosion hazard associated with various practices, and ratings for fencing and waterline installation.

Construction Limitations for Haul Roads and Log Landings

For limitations affecting the construction of haul roads and log landings, the ratings are based on slope, flooding, permafrost, plasticity index, the hazard of soil slippage, content of sand, the Unified classification of the soil, rock fragments on or below the surface, depth to a restrictive layer that is indurated, depth to a water table, and ponding.

The ratings are both verbal and numerical. Rating class terms indicate the degree to which the soils are suited to this aspect of forestland management. The limitations are described as slight, moderate, or severe. A rating of "slight" indicates that no significant limitations affect construction activities. "Moderate" indicates that one or more limitations can cause some difficulty in construction. "Severe" indicates that one or more limitations can make construction very difficult or very costly.

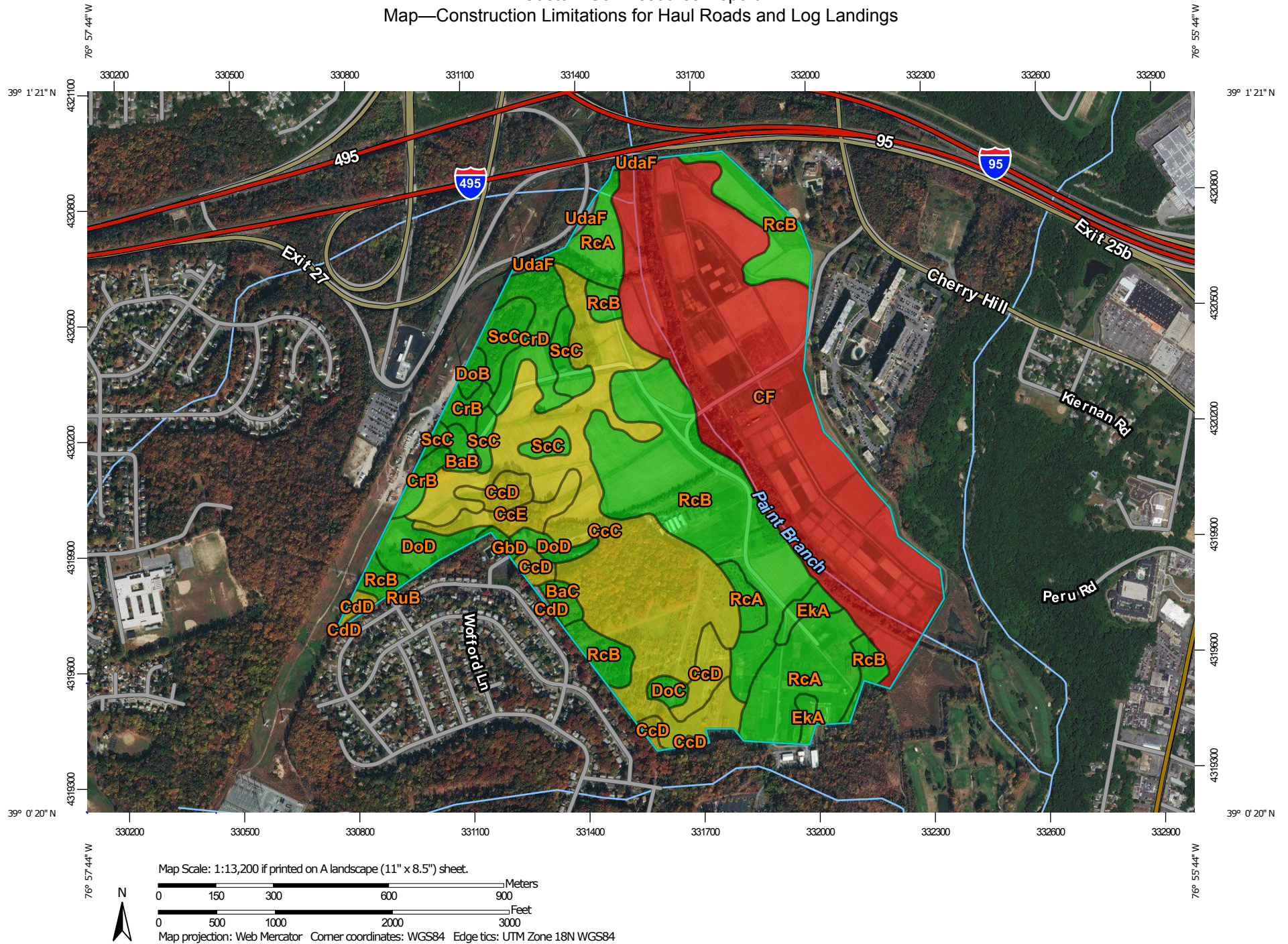
Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.


Custom Soil Resource Report

Map—Construction Limitations for Haul Roads and Log Landings




MAP LEGEND

Area of Interest (AOI)





 Area of Interest (AOI)

Background





 Aerial Photography

Soils





Soil Rating Polygons

 Severe
 Moderate
 Slight
 Not rated or not available


Soil Rating Lines

 Severe
 Moderate
 Slight
 Not rated or not available






Soil Rating Points

 Severe
 Moderate
 Slight
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Prince George's County, Maryland

Survey Area Data: Version 16, Sep 11, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 3, 2015—Feb 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Tables—Construction Limitations for Haul Roads and Log Landings

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BaB	Beltsville silt loam, 2 to 5 percent slopes	Slight	Beltsville (70%)	Dusty (0.07)	1.9	0.6%
BaC	Beltsville silt loam, 5 to 10 percent slopes	Slight	Beltsville (70%)	Dusty (0.07)	2.0	0.6%
CcC	Christiana-Downer complex, 5 to 10 percent slopes	Moderate	Christiana (45%)	Low strength (0.50)	70.3	21.2%
				Landslides (0.15)		
				Dusty (0.08)		
CcD	Christiana-Downer complex, 10 to 15 percent slopes	Moderate	Christiana (50%)	Low strength (0.50)	11.2	3.4%
				Landslides (0.35)		
				Dusty (0.08)		
CcE	Christiana-Downer complex, 15 to 25 percent slopes	Moderate	Christiana (45%)	Landslides (0.75)	5.3	1.6%
				Slope (0.50)		
				Dusty (0.08)		
			Downer (35%)	Slope (0.50)		
CdD	Christiana-Downer-Urban land complex, 5 to 15 percent slopes	Not rated	Urban land (20%)		0.4	0.1%
			Croom (5%)			
			Galestown (5%)			
			Udorthents (5%)			
			Issue (5%)			
CF	Codorus and Hatboro soils, frequently flooded	Severe	Codorus (40%)	Flooding (1.00)	104.2	31.5%
				Low strength (0.50)		
				Dusty (0.06)		
			Hatboro (40%)	Flooding (1.00)		
				Wetness (1.00)		
				Low strength (0.50)		
				Dusty (0.07)		
CrB	Croom gravelly sandy loam, 2 to 5 percent slopes	Slight	Croom (80%)	Dusty (0.02)	5.0	1.5%
CrD	Croom gravelly sandy loam, 10 to 15 percent slopes	Slight	Croom (75%)	Dusty (0.02)	9.4	2.8%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
DoB	Downer-Hammonton complex, 2 to 5 percent slopes	Slight	Downer (55%)		1.5	0.5%
			Hammonton (25%)			
			Phalanx (10%)	Dusty (0.00)		
DoC	Downer-Hammonton complex, 5 to 10 percent slopes	Slight	Downer (50%)		1.6	0.5%
			Hammonton (25%)			
			Russett (5%)	Dusty (0.06)		
			Fort Mott (5%)			
DoD	Downer-Hammonton complex, 10 to 15 percent slopes	Slight	Downer (50%)		8.3	2.5%
			Hammonton (25%)			
EkA	Elkton silt loam, 0 to 2 percent slopes	Slight	Elkton (85%)	Dusty (0.08)	3.7	1.1%
			Fallsington (5%)	Dusty (0.01)		
GbD	Galestown-Urban land complex, 5 to 15 percent slopes	Slight	Galestown (65%)		0.7	0.2%
RcA	Russett-Christiana complex, 0 to 2 percent slopes	Slight	Russett (45%)	Dusty (0.06)	27.2	8.2%
			Phalanx (5%)	Dusty (0.00)		
RcB	Russett-Christiana complex, 2 to 5 percent slopes	Slight	Russett (40%)	Dusty (0.06)	64.6	19.5%
RuB	Russett-Christiana-Urban land complex, 0 to 5 percent slopes	Not rated	Urban land (30%)		0.0	0.0%
			Udorthents (5%)			
			Hammonton (5%)			
ScC	Sassafras-Croom complex, 5 to 10 percent slopes	Slight	Sassafras (45%)	Dusty (0.02)	12.2	3.7%
			Croom (35%)	Dusty (0.02)		
UdaF	Udorthents, highway, 0 to 65 percent slopes	Not rated	Udorthents, highway (100%)		1.4	0.4%
Totals for Area of Interest					331.0	100.0%

Rating	Acres in AOI	Percent of AOI
Slight	138.2	41.8%
Severe	104.2	31.5%
Moderate	86.8	26.2%
Null or Not Rated	1.8	0.5%

Rating	Acres in AOI	Percent of AOI
Totals for Area of Interest	331.0	100.0%

Rating Options—Construction Limitations for Haul Roads and Log Landings

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Water Management

Water Management interpretations are tools for evaluating the potential of the soil in the application of various water management practices. Example interpretations include pond reservoir area, embankments, dikes, levees, and excavated ponds.

Irrigation, Sprinkler (General)

This interpretation evaluates a soil's limitation(s) for installation and use of sprinkler irrigation systems, excluding those equipped with closely spaced outlets on drops, which are covered by a different interpretation. The ratings are for soils in their natural condition and do not consider present land use.

Sprinkler irrigation systems apply irrigation water to a field through a series of pipes and nozzles and can be either solid set or mobile. Generally, this type of irrigation system is suitable for small grains, row crops, vegetables, and orchards.

The soil properties and qualities important in the design and management of sprinkler irrigation systems are depth, available water holding capacity, sodium adsorption ratio, surface coarse fragments, saturated hydraulic conductivity, salinity, slope, wetness, and flooding. The features that affect performance of the system and plant growth are surface rocks, salinity, sodium adsorption ratio, wetness, and available water holding capacity.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the interpretation. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Custom Soil Resource Report

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Rating class terms indicate the extent to which the soils are limited by the soil features that affect the soil interpretation. Verbal soil rating classes are based on the highest numerical rating for the most limiting soil feature(s) considered in the rating process. "Not limited" (numerical value for the most restrictive feature = 0.00) indicates that the soil has no limiting features for the specified use. "Somewhat limited" (numerical value for the most restrictive feature = .01 to .99) indicates that the soil has limiting features for the specified use that can be overcome with proper planning, design, installation, and management. The effort required to overcome a soil limitation increases as the numerical rating increases. "Very limited" (numerical value for the most restrictive feature = 1.00) indicates that the soil has one or more very limiting features that can only be overcome with special planning, major soil modification, special design, or significant management practices.

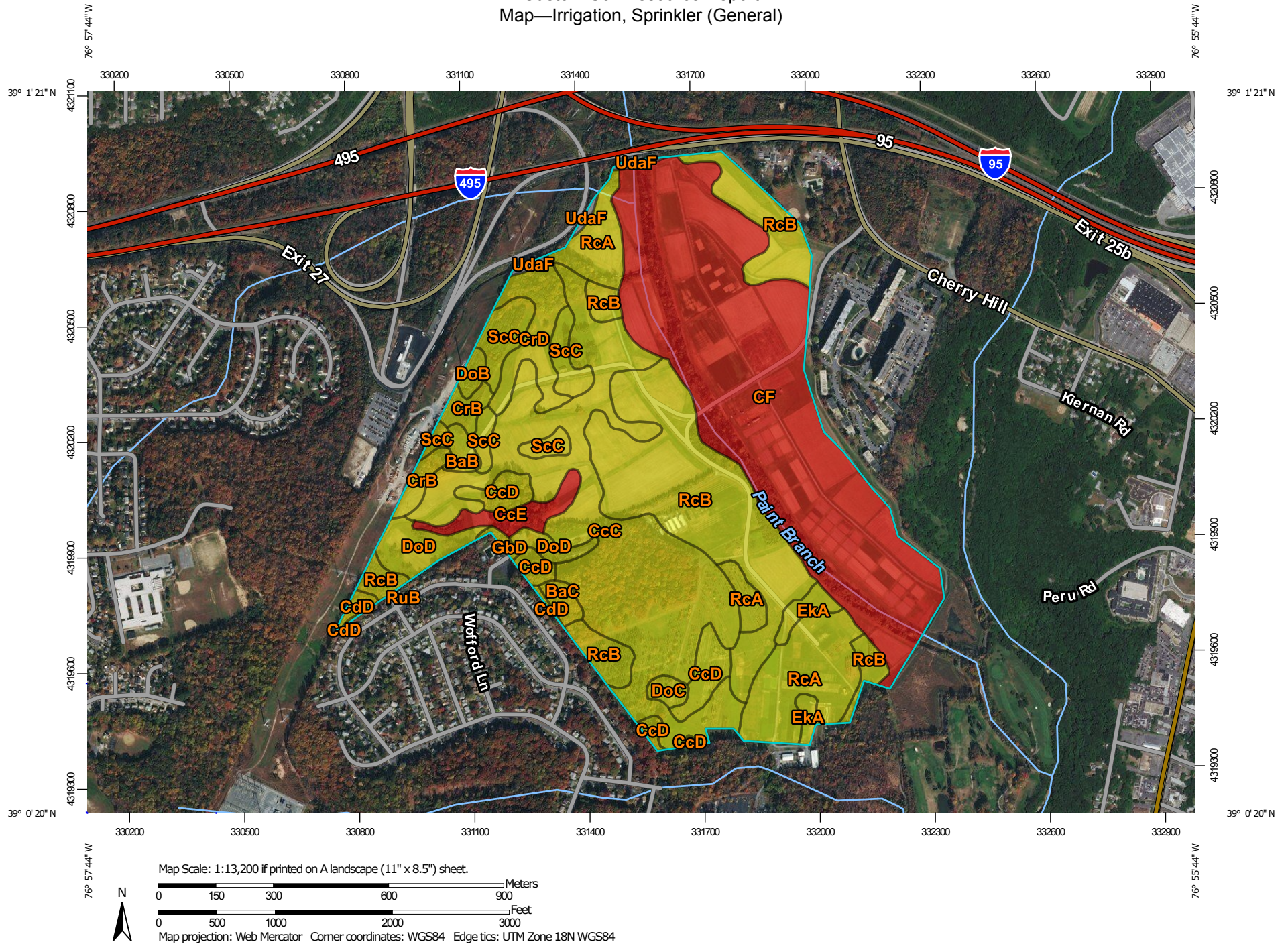
Lesser soil restrictive features have a lower numerical value than the maximum used to rate the soil, and they are identified to provide the user with additional information about soil limitations for the specific use. Lesser soil restrictive features also need to be considered in planning, design, installation, and management.

The results of this interpretation are not designed or intended to be used in a regulatory manner.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.


Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report Map—Irrigation, Sprinkler (General)




MAP LEGEND

Area of Interest (AOI)





 Area of Interest (AOI)

Background





 Aerial Photography

Soils





Soil Rating Polygons

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available


Soil Rating Lines

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available






Soil Rating Points

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

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 Survey Area Data: Version 16, Sep 11, 2018

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Date(s) aerial images were photographed: May 3, 2015—Feb 22, 2017

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Custom Soil Resource Report

Tables—Irrigation, Sprinkler (General)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BaB	Beltsville silt loam, 2 to 5 percent slopes	Somewhat limited	Beltsville (70%)	Cemented pan (1.00)	1.9	0.6%
				Too acid (0.56)		
				Low water holding capacity (0.22)		
			Lenni, undrained (5%)	Too acid (0.44)		
				Slow water movement (0.30)		
BaC	Beltsville silt loam, 5 to 10 percent slopes	Somewhat limited	Beltsville (70%)	Cemented pan (1.00)	2.0	0.6%
				Too acid (0.56)		
				Low water holding capacity (0.22)		
				Slope, sprinkler irrigation (0.03)		
			Grosstown (15%)	Too acid (0.68)		
				Slope, sprinkler irrigation (0.03)		
			Aquasco (5%)	Cemented pan (1.00)		
				Too acid (0.56)		
				Slow water movement (0.20)		
				Low water holding capacity (0.14)		
CcC	Christiana-Downer complex, 5 to 10 percent slopes	Somewhat limited	Christiana (45%)	Too acid (0.86)	70.3	21.2%
				Slow water movement (0.76)		
				Low water holding capacity (0.11)		
				Slope, sprinkler irrigation (0.10)		
			Downer (30%)	Too acid (0.22)		
				Low water holding capacity (0.14)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Slope, sprinkler irrigation (0.10)		
CcD	Christiana-Downer complex, 10 to 15 percent slopes	Somewhat limited	Christiana (50%)	Too acid (0.86)	11.2	3.4%
				Slope, sprinkler irrigation (0.78)		
				Slow water movement (0.76)		
				Low water holding capacity (0.11)		
			Downer (35%)	Slope, sprinkler irrigation (0.90)		
				Too acid (0.22)		
				Low water holding capacity (0.14)		
CcE	Christiana-Downer complex, 15 to 25 percent slopes	Very limited	Christiana (45%)	Slope, sprinkler irrigation (1.00)	5.3	1.6%
				Too acid (0.86)		
				Slow water movement (0.76)		
				Low water holding capacity (0.11)		
			Downer (35%)	Slope, sprinkler irrigation (1.00)		
				Too acid (0.22)		
				Low water holding capacity (0.14)		
CdD	Christiana-Downer-Urban land complex, 5 to 15 percent slopes	Somewhat limited	Christiana (30%)	Too acid (0.86)	0.4	0.1%
				Slow water movement (0.76)		
				Slope, sprinkler irrigation (0.40)		
				Low water holding capacity (0.11)		
			Downer (25%)	Slope, sprinkler irrigation (0.40)		
				Too acid (0.22)		
				Low water holding capacity (0.14)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Sassafras (5%)	Slope, sprinkler irrigation (0.40)		
				Too acid (0.22)		
CF	Codorus and Hatboro soils, frequently flooded	Very limited	Hatboro (40%)	Depth to saturated zone (1.00)	104.2	31.5%
				Frequent or very frequent flooding (0.70)		
CrB	Croom gravelly sandy loam, 2 to 5 percent slopes	Somewhat limited	Croom (80%)	Low water holding capacity (0.97)	5.0	1.5%
				Too acid (0.32)		
CrD	Croom gravelly sandy loam, 10 to 15 percent slopes	Somewhat limited	Croom (75%)	Low water holding capacity (0.97)	9.4	2.8%
				Slope, sprinkler irrigation (0.78)		
				Too acid (0.32)		
DoB	Downer-Hammonton complex, 2 to 5 percent slopes	Somewhat limited	Downer (55%)	Too acid (0.22)	1.5	0.5%
				Low water holding capacity (0.14)		
			Hammonton (25%)	Too acid (0.78)		
				Low water holding capacity (0.17)		
DoC	Downer-Hamonton complex, 5 to 10 percent slopes	Somewhat limited	Downer (50%)	Too acid (0.22)	1.6	0.5%
				Low water holding capacity (0.14)		
				Slope, sprinkler irrigation (0.10)		
			Hammonton (25%)	Too acid (0.78)		
				Low water holding capacity (0.17)		
				Slope, sprinkler irrigation (0.10)		
			Phalanx (10%)	Too acid (0.44)		
				Low water holding capacity (0.11)		
				Slope, sprinkler irrigation (0.10)		
			Russett (5%)	Too acid (0.86)		
				Slope, sprinkler irrigation (0.10)		

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Fort Mott (5%)	Low water holding capacity (0.63)		
				Slope, sprinkler irrigation (0.10)		
			Patapsco (5%)	Low water holding capacity (0.99)		
				Slope, sprinkler irrigation (0.10)		
DoD	Downer-Hammonton complex, 10 to 15 percent slopes	Somewhat limited	Downer (50%)	Slope, sprinkler irrigation (0.90)	8.3	2.5%
				Too acid (0.22)		
				Low water holding capacity (0.14)		
			Hammonton (25%)	Slope, sprinkler irrigation (0.90)		
				Too acid (0.78)		
				Low water holding capacity (0.17)		
EkA	Elkton silt loam, 0 to 2 percent slopes	Somewhat limited	Elkton (85%)	Too acid (0.78)	3.7	1.1%
				Slow water movement (0.32)		
			Fallsington (5%)	Too acid (0.22)		
			Lenni, undrained (5%)	Too acid (0.44)		
				Slow water movement (0.30)		
GbD	Galestown-Urban land complex, 5 to 15 percent slopes	Somewhat limited	Galestown (65%)	Slope, sprinkler irrigation (0.40)	0.7	0.2%
				Too acid (0.22)		
				Low water holding capacity (0.21)		
RcA	Russett-Christiana complex, 0 to 2 percent slopes	Somewhat limited	Russett (45%)	Too acid (0.86)	27.2	8.2%
			Christiana (25%)	Too acid (0.86)		
				Slow water movement (0.76)		
				Low water holding capacity (0.11)		
RcB	Russett-Christiana complex, 2 to 5 percent slopes	Somewhat limited	Russett (40%)	Too acid (0.86)	64.6	19.5%
			Christiana (35%)	Too acid (0.86)		

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Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Slow water movement (0.76)		
				Low water holding capacity (0.11)		
RuB	Russett-Christiana-Urban land complex, 0 to 5 percent slopes	Somewhat limited	Russett (30%)	Too acid (0.86)	0.0	0.0%
			Christiana (30%)	Too acid (0.86)		
				Slow water movement (0.76)		
				Low water holding capacity (0.11)		
ScC	Sassafras-Croom complex, 5 to 10 percent slopes	Somewhat limited	Sassafras (45%)	Slope, sprinkler irrigation (0.10)	12.2	3.7%
				Too acid (0.04)		
			Croom (35%)	Low water holding capacity (0.97)		
				Too acid (0.32)		
				Slope, sprinkler irrigation (0.10)		
UdaF	Udorthents, highway, 0 to 65 percent slopes	Not rated	Udorthents, highway (100%)		1.4	0.4%
Totals for Area of Interest					331.0	100.0%

Rating	Acres in AOI	Percent of AOI
Somewhat limited	220.0	66.5%
Very limited	109.6	33.1%
Null or Not Rated	1.4	0.4%
Totals for Area of Interest	331.0	100.0%

Rating Options—Irrigation, Sprinkler (General)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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